UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/851,621	05/09/2001	Dayong Chen	8194-502	4079

27045	7590	02/09/2005	

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EXAMINER
STEVENS, ROBERTA A

ART UNIT	PAPER NUMBER
2665	

DATE MAILED: 02/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO 90C (Rev 10/03)

Office Action Summary	Application No.	Applicant(s)
	09/851,621	CHEN, DAYONG
	Examiner	Art Unit
	Roberta A Stevens	2665

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on _09 May 2001_.

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) _1-57_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) _1-57_ is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _09-30-02_.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

Claim Rejections - 35 USC § 112

1.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2.   Claim 21 recites the limitation "respective first and second different procedures". There

is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

1.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2.   Claims 1-2, 16, 26, 29, 30, 43, 46, 47 and 55 are rejected under 35 U.S.C. 102(e) as being

anticipated by Loguinov (U.S. 2002/0124096 A1).

3.   Regarding claims 1, 26 and 29, Loguinov teaches (fig. 2) a method of operating an entity

(server system) of a communication system, to communicate with at least one other entity (client

system) of the communication system via a communication medium (network), comprising:

transmitting a segment from the entity, conforming to a segment format (fig. 4a) comprising a

data portion (data payload) and a header portion (UDP header) comprising a field (fig. 4b) for a

sequence number (packet sequence #) associated with data in the data portion, wherein the

header portion of the transmitted segment includes a segment transmission sequence number

(retx count).

4.   Regarding claims 2, 16, 30, 43, 47 and 5, Loguinov teaches (page 3, paragraphs 5-6) the

field for a sequence number associated with data in the data portion comprises a field for a

sequence number of a data byte in the data portion. Loguinov teaches TCP which is a byte

oriented protocol.

5.   Regarding claim 46, Loguinov teaches (page 3, paragraphs 5-6) a computer program

product for creating data structures for transmission in a communications system, comprising

computer readable program code embodied in a computer readable storage medium, comprising:

program code for constructing a segment conforming to a segment format comprising a data

portion and a header portion comprising a field for a sequence number associated with data in the

data portion, the heard portion includes a segment transmission sequence number (fig. 4b)

Claim Rejections - 35 USC § 103

6.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

7.   Claims 3-15, 17-20, 22-25, 27, 28, 31-42, 44, 45, 48-54, 56 and 57 are rejected under 35

U.S.C. 103(a) as being unpatentable over Loguinov in view of Odenwald (U.S. 6310884 B1).

8.   Regarding claims 3, 17, 21, 27, 31, 40, 48 and 56, Loguinov teaches all of the limitations

of claim 1.

9.   Loguinov does not teach an Urgent Pointer Filed of the header portion of the transmitted

segment includes the segment transmission sequence number.

10.   Odenwald teaches (col. 8, lines 40-52) Urgent Pointer Filed of the header portion of the

transmitted segment includes the segment transmission sequence number. It would have been

obvious to one of ordinary skill in the art to adapt this to Loguinov's system to ensure efficiency

of assembly of the frame.

11.   Regarding claim 4, 23, 32 and 49, Odenwald teaches (col. 10, lines 1-37) the segment

transmission sequence number in the UDP field of the header of the transmitted segment

responsive to an absence of data (error) in the data portion/

12.   Regarding claims 5, 20, 33 and 50, Odenwald teaches (fig. 9) transmitting a first segment

from the entity conforming to a segment format and comprising a segment transmission

sequence number in a predefined field of the header portion; and transmitting a second segment

from the entity, conforming to a segment format and comprising information other than a

segment transmission sequence number in the predefined field of its header portion.

13.   Regarding claims 6 and 34, Odenwald teaches (fig. 9) the header port comprises a

Urgent Pointer field; transmitting a first segment from the entity, conforming to a segment

format and comprising a header portion comprising a first segment transmission sequence

number in he Urgent Pointer field; and transmitting a second segment from the entity,

conforming to a segment format and comprising a second header portion comprising a value in

its Urgent Pointer field that identifies urgent data in a data portion of the second segment (col. 8,

lines 40-52).

14.   Regarding claims 7 and 35, Loguinov teaches (page 1, paragraphs 5-6) receiving an

acknowledgment of the transmitted segment at the entity; and determining a round trip time

responsive to the transmission of the segment and the receipt of the acknowledgment (fig. 1a).

15.   Regarding claims 8, 38 and 53, Loguinov teaches (page 1, paragraphs 5-6 and fig. 1a)

transmitting a first segment from the entity, the first segment conforming to the segment format

and comprising first segment transmission sequence number in its header portion (fig 1a, UDP

header); receiving a second segment at the entity, conforming to a segment format and

comprising segment transmission sequence number in its header portion; determining a round

trip time responsive to the transmission of the segment and the receipt of the acknowledgment

comprises determining the round trip time responsive to the transmission of the first segment and

the receipt o the second segment.

16.   Regarding claims 9 and 51, Loguinov teaches (page 1, paragraphs 5-6 and fig. 1a)

determining a time of transmission of the first segment; determining the time of reception of the

second segment; and determining the round tri time responsive to the transmission of the first

segment and the receipt of the second segment comprises determining the round trip time from

the determined time of transmission and the determined time of reception.

17.   Regarding claims 10, 25, 37 and 52 teaches () adjusting a retransmission timing based on

the determined round trip time.

18.   Regarding claim 11, Odenwald teaches (fig. 9) transmitting a first segment from the

entity, the first segment conforming to the segment format and comprising first segment

transmission sequence number in its header portion (fig 1a, UDP header); receiving a second

segment at the entity, conforming to a segment format and comprising information other than a

segment transmission sequence number in the predefined field of its header portion; determining

a round trip time according to a first procedure responsive to receipt of the first segment; and

determining a round trip time according to a second procedure responsive to the receipt of the

second segment.

19.   Regarding claims 12 and 41, Loguinov teaches (fig. 2) transmitting the segment in one

of a wireless communications medium, a wireline communications medium, and an optical

communications medium.

20.   Regarding claims 13, 42 and 54, Loguinov teaches (fig. 2) a method of operating an

entity (server system) of a communications system, to communicate with at least one other entity

(client server) of the communication system via a communications medium (network),

comprising: receiving a segment at the entity, conforming to a segment format comprising a data

portion (fig. 4a, data payload) and a header portion (fig. 4b, UDP header) comprising a field for a

sequence number (packet seq #) associated with data in the data portion, wherein the header

portion o the segment includes a segment transmission sequence number (Retx count); and

transmitting an acknowledgment reflecting the segment transmission sequence number of the

received segment from the entity (page 1, paragraphs 5-6 and fig. 1a).

21.   Regarding claim 14, Odenwald teaches ().transmitting a segment conforming to the

segment format and including a segment transmission sequence number in its header portion.

22.   Regarding claim 15, Loguinov teaches (page 1, paragraph 6) the transmitted segment

includes the same segment transmission sequence number as the received segment.

23.   Regarding claims 18 and 45, Odenwald teaches (fig. 5) receiving the segment from one

of the wireless, wireline, and optical communications medium and transmitting an

acknowledgment reflecting the segment transmission sequence number of the received segment

from the entity comprises transmitting the acknowledgment in the one wireless, wireline and

optical communication medium.

24.   Regarding claim 19, Loguinov teaches (page 1, paragraph 6) a method of formatting TCP

segments comprising: including segment transmission sequence numbers in header portions of

the segment (fig. 4b).

25.   Regarding claim 24, Loguinov teaches (page 1, paragraph 6) determining round trip time

responsive to receipt of a segment transmission sequence number.

26.   Regarding claim 28, Odenwald teaches (figs. 1 and 6) the communications structure is

embodied in one of a wireless, wireline, optical, and storage medium.

27.   Regarding claim 36, Loguinov teaches (page 1, paragraph 6) receive a segment

conforming to the segment format and comprising a segment transmission sequence number in

its header portion, and to determine the round trip time responsive to receipt of the segment.

28.   Regarding claim 39, Loguinov teaches (page 1, paragraph 6) first and second sequence

numbers in its header portion (fig. 4b).

29.   Regarding claim 57, Odenwald teaches (fig. 9) acknowledgment comprises a segment

including first and segment transmission sequence number in its header portion.
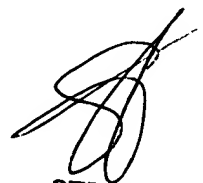
Conclusion

1.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Roberta A Stevens whose telephone number is 571-272-3161. The examiner can normally be reached on M-F 9:00am-5:30pm.

2.   If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on 571-272-3155. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

3.   Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Roberta A Stevens
Examiner
Art Unit 2665

STEVEN NGUYEN
PRIMARY EXAMINER